

NEOTROPICAL MIGRATORY BIRD AND YELLOW RAIL SURVEYS

The third year of the Bureau of Land Management's (BLM) baseline monitoring for neotropical migratory birds was completed at the Wood River Wetland in July 1997.

Major wetland and river restoration work was initiated during late summer in 1997; therefore, changes in habitat conditions warranted the end of baseline monitoring for this group of species.

Monitoring efforts conducted by the Redwood Sciences Lab (RSL), Pacific Southwest Research of the U.S. Forest Service, continued in 1998 and 1999 to collect data on demographics and use of the area during fall migration. This study is being conducted under an interagency agreement between the U.S. Forest Service and the Bureau of Land

Surveys for yellow rails were conducted by the Nature Conservancy on the northeast portion of the property where restoration work has been completed. In addition, mid-winter bald eagle counts have been conducted by BLM personnel on the property for the past three years.

Methods

In 1998, sampling at the "Monitoring Avian Productivity and Survivorship" (MAPS) site continued at Wood River to collect data on reproductive success, use of the area during fall migration, and overall trend for neotropical migratory birds. The methods involved for monitoring under this study include mist netting, point counts associated with mist net sites during the breeding season, and area search at the mist net sites during fall migration. The site is sampled from mid-May through the end of October.

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In addition to the MAPS site, Rapid Ornithological Inventory (ROI) was conducted along the South Dike. This method involves mist-netting and use of the area search technique over a two day period to provide a relative comparison of bird use between the closest MAPS site and other similar habitat types in the same area.

There is a disjunct breeding population of yellow rail in Oregon which was discovered in the Wood River Valley in 1982. Yellow rail surveys are conducted a night in preferred habitat types to locate territorial males. Males are captured and banded where it is feasible to do so. Nest searches take place during the day in suitable habitat within likely breeding territories.

Mid-winter counts for bald eagles are conducted annually on a nationwide basis during target dates in January. The route at Wood River consists of a six-mile route around the perimeter of the property.

Neotropical Migratory Birds

1997

May and June of 1997 comprised the third sampling season for baseline data on the presence and relative abundance of neotropical migratory birds at Wood River. Although species diversity and relative abundance of neotropical migratory birds for 1997 are not presented here, it was very similar to 1995 and 1996. Of the three years of sampling, the most detailed analysis is presented in the 1995 report titled "1995 Monitoring Report, Wood River Wetland Plan, Baseline Surveys." Once baseline data sampling is complete, a comprehensive analysis of the data will be presented.

A total of 142 bird species have been documented at Wood River as of November 1997. This list includes species

detected during the MAPS study. Twenty-five species that previously had not been documented at Wood River were detected in 1997.

The MAPS study included capture and censusing during post breeding and fall migration and thus supplemented the breeding season data collected by the Bureau of Land Management (BLM). Fifteen of the previously undetected species were found during the breeding and post-breeding season. An additional ten species were found during the fall migration period. New bird species detected by the Redwood Sciences Lab are listed in Table ?. As well as whether they were detected during breeding/post breeding or fall migration periods. The five most common bird species captured through netting during the fall migration period were the yellow-rumped warbler, hermit thrush, orange-crowned warbler, ruby-crowned kinglet, and song sparrow. The only one of these species previously detected during the BLM's breeding season censusing was the song sparrow. The yellow-rumped warbler had been detected previously by BLM in large numbers along the Wood River during the spring migration period in 1996 and 1997. The remaining three species had not been previously found at Wood River. Species detected through fall censusing, which were in the top five in terms of abundance, included the mountain and black-capped chickadees. During the breeding season, these species were rare to absent during the 1995, 1996, and 1997 BLM surveys.

A few relatively uncommon bird species to the Klamath Basin were detected during 1997 and included the yellow-breasted chat, Lincoln's sparrow, and Swainson's thrush (Summers 1993). With the exception of the Lincoln's sparrow, these species are rare to very uncommon in the Upper Klamath Basin (Summers 1993). According to Summers, the yellow-breasted chat is "inexplicably found only as a transient, and is a difficult bird to find." In addition, a large colony of several hundred tri-colored blackbirds was found along the Wood River for the third year in a row.

1998

A total of 154 bird species, including 11 not previously observed, were documented at Wood River as of November 1998 (Table 3). This list includes species detected during the MAPS study. Eight of the eleven new bird species were detected by RSL during mist netting and censusing. Of these, three species (green-tailed towhee, olive-sided flycatcher, and red-napped sapsucker) were detected during the breeding/post breeding season. Four species, (brown creeper, spotted towhee, varied thrush, and white-throated sparrow) were detected during the fall migration period. The red-breasted sapsucker was found during both the breeding/post breeding and fall periods (Table ?).

The six most common neotropical migratory bird species captured during the breeding/post breeding period, in order of abundance, included the song sparrow, American robin, red-winged blackbird and yellow warbler, brown-headed cowbird, and Wilson's warbler. There were 30 Wilson's warblers captured one morning in late May; these birds, were likely migrating through the area. During subsequent sampling days conducted during the peak of the breeding season, only four were captured. This species was rarely encountered during BLM's point count surveys conducted from 1995 through 1997.

The five most common bird species captured through mist netting during the fall migration period, in order of abundance, were the hermit thrush, song sparrow, orange-crowned warbler, varied thrush and fox sparrow. Except for the song sparrow, none of these species were detected during the breeding season surveys conducted by BLM during 1995, 1996, or 1997, and none were found by RSL during the peak breeding season.

With the exception of the song sparrow, which is a year-round resident, these species likely used the area primarily for migration. Of these most commonly captured fall migrants, all except the varied thrush were detected during 1997.

A few bird species rare to uncommon in the Klamath Basin (based on Summers 1993) which were first detected during 1998 included the white-throated sparrow and red-napped sapsucker. The yellow-breasted chat was captured again in 1998 for the second year. This species is "inexplicably found only as a transient, and is a difficult bird to find" (Summers, 1993). In addition, a colony of nesting tri-colored blackbirds was found along the north dike. Colonies of this bird have been found for the past four years, including 1998.

1999

A total of 160 bird species were documented at Wood River as of February 2000 (Table 1). This list includes species detected during the MAPS study. Six species which had not previously been documented at Wood River, were detected during 1999 and early in 2000.

Five of the new bird species were detected by RSL during their mist netting and censusing. Of these, the dusky flycatcher, hairy woodpecker, and house finch were detected during the breeding/post breeding season. Evening grosbeaks were detected in October during the fall migration period on Petric Dike.

The six most common landbird species captured in the mist nets during the breeding/post breeding period, in order of abundance, were the song sparrow and red-winged blackbird, American robin, black-headed grosbeak, brown-headed cowbird, and yellow warbler (Table 2).

The five most common bird species captured through mist netting during the fall migration period, in order of abundance, were the yellow-rumped warbler, marsh wren, song sparrow, Lincoln sparrow, and hermit thrush (Table 2). The song sparrow and marsh wren nest at Wood River and were detected during the breeding season surveys conducted by BLM during 1995, 1996, and 1997. These species are also year-round residents. The yellow-rumped warbler, Lincoln sparrow, and hermit thrush likely utilize the area only during their migration. During October, large numbers (>115) of yellow-rumped warblers were counted during census efforts that did not involve mist nets. Large numbers of yellow-rumped warblers have also been observed by BLM personnel during the spring migration period.

The greatest number and diversity of birds captured using mist nets at the MAPS site at Wood River were in late May and early June. The lowest number and diversity of birds captured was during the month of September and again in late October. During the ROI conducted on the South Dike in mid-July, 10 species of birds were captured. All of these, except for the house finch, had been previously detected during BLM's baseline surveys which covered the same area. Song sparrows comprised the majority of the birds captured. Both the MAPS station and the ROI were run on July 21. On this date, five species were captured at the MAPS site versus seven at the ROI site.

In 1997 and 1998, the yellow-breasted chat was detected by Redwood Sciences Lab personnel. Although RSL did not detect it in 1999, a credible documentation of this species was made on June 5th along the South Dike. This species is "inexplicably found only as a transient, and is a difficult bird to find", according to Summers, 1993.

The data presented above is preliminary and no conclusions on the importance of the Wood River Wetland as habitat for migrating neotropical birds, or overall trend for these birds, can be made at this point in time.

Yellow Rail

1997

The Nature Conservancy of Oregon conducted yellow rail surveys on the Wood River property during the 1997 season and no birds were found. The potential yellow rail habitat at Wood River was relatively dry due to the pumping of water which was necessary for wetland restoration activities. The presence of shallow water is one of the breeding habitat requirements for the yellow rail and is believed to be a contributing factor to the negative survey results. During 1998, water levels should be maintained within potential yellow rail habitat. Surveys will be conducted in 1998 and should be more indicative of the habitat potential for this species than survey results from 1996 and 1997.

1998

In 1998, the potential yellow rail habitat was flooded subsequent to completion of restoration work in that area. The presence of shallow water is one of the breeding habitat requirements for the yellow rail. During the 1998 breeding season, six territorial male yellow rails were captured and four of these were subsequently banded. Two of the six birds were recaptures that had been banded at the Four-mile Creek Wetland earlier in the 1998 season.

1999

Wood River Wetland was surveyed for Yellow Rails approximately once every ten days during the 1999 breeding

season (May 6 - July 29). Rails were first heard calling on May 13, and were last heard calling on July 9. The maximum number of male rails heard calling was 6 on May 13. Five males were captured on May 19th, including one recapture from the previous year. In 1998 this male was originally captured at Fourmile Creek and later recaptured at Wood River Wetland. Two additional males were captured on July 9th. Although no nests were discovered during 1999, nesting probably occurred. Based on field observations, there appears to be a strong correlation between water depth and habitat use.

Future Monitoring

The MAPS study will continue as funding is available. The data presented above are preliminary and no conclusions on the importance of the Wood River Wetland as habitat for migrating neotropical birds, or overall trend for these birds, can be made at this point in time.

Bald Eagle

1998&1999

Mid-winter bald eagle counts were conducted during 1998 and 1999. Mid-winter counts are conducted annually on a nationwide basis during target dates in January. The route at Wood River consists of a 6-mile route around the perimeter of the property. In 1998, five immature bald eagles and one adult bald eagle were observed along the route. In 1999, two adult bald eagles and two immature eagles were documented. Bald eagles have been frequently observed hunting at Wood River during the spring and summer months.

2000

Mid-winter bald eagle counts were conducted for the third year in 2000. In 2000, three immature bald eagles and two adult bald eagles were observed along the route.

Bald eagles also have been frequently observed hunting at Wood River throughout the year.

Future Monitoring

The MAPS study of neotropical migratory birds by the RSL and the surveys of yellow rails by The Nature Conservancy will continue as funding is available. Bald eagle mid-winter counts will continue indefinitely.

Table 4. List of All Bird Species Documented at the Wood River Wetland as of November 1998.

American avocet	Belted kingfisher	Brewer's blackbird
American bittern	Black-billed magpie	Brown creeper
American coot	Black-capped chickadee	Brown-headed cowbird
American goldfinch	Black-crowned night heron	Bufflehead
American kestrel	Black-headed grosbeak	Bullock's oriole
American robin	Black-necked stilt	California gull
American white pelican	Black tern	California quail
American wigeon	Blue-winged teal	Canada goose
Bald eagle	Bonaparte's gull	Canvasback
Barn swallow	Brant	Caspian tern

Cedar waxwing
Chestnut-backed chickadee
Chipping sparrow
Cinnamon teal
Clark's grebe
Cliff swallow
Common barn owl
Common loon
Common merganser
Common nighthawk
Common raven
Common snipe
Common yellowthroat
Dark-eyed junco
Double-crested cormorant
Downy woodpecker
Dusky flycatcher*
Eared grebe
European starling
Evening grosbeak*
Ferruginous hawk
Forster's tern
Fox sparrow
Franklin's gull
Gadwall
Golden-crowned kinglet
Golden-crowned sparrow
Goldeneye
Grasshopper sparrow
Great blue heron
Great egret

Great horned owl
Greater white-fronted goose
Greater yellowlegs
Green-backed heron
Green-tailed towhee
Green-winged teal
Hairy woodpecker*
Hermit thrush
Hermit warbler
Horned grebe
Horned lark
House finch*
House wren
Killdeer
Lazuli bunting
Least sandpiper
Lesser scaup
Lesser yellowlegs
Lincoln sparrow
Loggerhead shrike
Long-billed dowitcher
Long-eared owl
MacGillivray's warbler
Mallard
Marsh Wren
Merlin
Mountain bluebird
Mountain chickadee
Mourning dove
Nashville warbler
Northern flicker

Northern harrier
Northern pintail
Northern rough-winged swallow
Northern saw-whet owl
Northern shoveler
Olive-sided flycatcher *
Orange-crowned warbler
Osprey
Peregrine falcon
Pied-billed grebe
Pine siskin
Prairie falcon
Purple finch
Pygmy nuthatch*
Red-breasted sapsucker
Redhead
Red-napped sapsucker
Red-tailed hawk
Red-winged blackbird
Ring-billed gull
Ring-necked duck
Ross' goose
Ruby-crowned kinglet
Ruddy duck
Sandhill crane
Savannah sparrow
Say's phoebe*
Scaup
Sharp-shinned hawk
Short-billed dowitcher
Snow goose

Snowy egret
Solitary vireo
Song sparrow
Sora
Spotted sandpiper
Spotted towhee
Stellar's jay
Swainson's thrush
Tree swallow
Tri-colored blackbird
Tundra swan
Turkey vulture
Varied thrush
Violet-green swallow

Virginia rail
Warbling vireo
Western flycatcher
Western grebe
Western kingbird
Western meadowlark
Western sandpiper
Western tanager
Western wood-pewee
White-crowned sparrow (gambelii)
White-throated sparrow
White-faced ibis
Willow flycatcher

Willet
Wilson's phalarope
Wilson's warbler
Winter wren
Wood duck
Yellow-breasted chat
Yellow-headed blackbird
Yellow rail
Yellow-rumped warbler
Audubon's warbler
Myrtle warbler
Yellow warbler

Total number of species = 154

Total number of species not previously detected = 11

*Species not previously documented at Wood River which were detected during mist netting and censusing conducted by Redwood Sciences Lab in 1999 and observations by Bureau of Land Management personnel in early 2000.

Table 5. Bird species not previously detected at Wood River which were captured in 1998 through mist netting at Petric Dike during the breeding/post breeding and fall migration periods. Sampling was conducted by the Redwood Sciences Lab, Pacific Southwest Research, U.S. Forest Service.

Bird Species	Breeding/Post Breeding Season Detections	Fall Migration Season Detections
Brown creeper		X
Green-tailed towhee	X	
Olive-sided flycatcher	X	
Red-breasted sapsucker	X	X
Red-napped sapsucker	X	
Spotted towhee		X
Varied thrush		X
White-throated sparrow		X

Table 6. The five most common landbird species captured at Petric Dike using mist nets during the 1999 breeding/post breeding and fall migration periods. Sampling was conducted by the Redwood Sciences Lab, Pacific Southwest Research, U.S. Forest Service.

Order of Abundance	Breeding/Post Breeding Season Net Captures	Fall Migration Season Net Captures
	Bird Species	Bird Species
1	Song sparrow/Red-winged blackbird	Yellow-rumped warbler
2	America robin	Marsh wren
3	Black-headed grosbeak	Song sparrow
4	Brown-headed cowbird	Lincoln sparrow
5	Yellow warbler	Hermit thrush